

ABSTRACT

5 A portable communication network comprises plural portable communications units, each
providing a unit code identifier, a wave energy transceiver, preferably using RF energy
which is enabled for direct communication with any other of the communications units over
a limited range, a device for assigning a target code to each signal transmission, a device for
detecting the target code in each signal reception, a device for processing a received signal
when the target code of the received signal equals the unit code, and a device for
10 retransmitting a received signal when the target code of the received signal differs from the
unit code. In this manner, through signal repeating, communication is enabled between any
two of the communications units when their separation is greater then the limited range.
Automatic routing through the communication network is established between two members
of the network. Alternate routes are established as background tasks to be switched in if the
15 current route is interrupted.